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ABSTRACT

This booklet examines the role of business in school restructuring and the types of precollege activities in which business is currently engaged. Chapter 1 briefly discusses what restructuring means including its salient features and general method of operation. The second chapter looks at why restructuring is so difficult, and identifies two challenges faced by business in school restructuring--to develop a consensus for change, and to create a stable environment that encourages system changes. Chapter 3 identifies the characteristics of restructured schools and examines the changing roles and relationships involved. Chapter 4, by far the longest in the booklet, offers examples of programs that are designed to achieve the following outcomes: increased student learning; extended teacher capacity; innovative school systems; and effective measurement of academic success. The final chapter offers suggestions to help business leaders choose entry points into feasible education support programs that are consonant with their corporation's interests and resources. Guidelines are also provided for implementing and managing the projects they fund. The appendices contain a business plan for education support and a list of resource organizations. (Contains 14 references.) (LMI)

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School Restructuring

Designing Schools for Better Student Learning

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School Restructuring

Designing Schools for Better Student Learning

Diana W. Rigden
Director, Precollege Programs

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Introduction

Rhetoric alone cannot support school reform. Business must now behave responsibly in its support of schools and school reform. The rhetoric calling for dramatic changes has been candid and unconstrained, but actions have not been directed toward change-making practices and have only served to support the educational status quo. One way to illustrate this disparity is to examine the types of precollege activities in which companies are currently engaged.

Business Involvement through Enrichment and Reform

Business is involved with the schools through two types of activities — enrichment programs and reform programs. *Enrichment programs*, by far the more popular, are directed toward enhancing the academic and social experiences of students while maintaining the traditional structure and organization of schools and school systems.

Examples of such programs include everything from adopt-a-school to after-school science and math clubs. Many of these programs are highly effective as support programs, and many individual teachers and students are encouraged, challenged, and helped. But the programs have not improved the way the school system educates its students and they have had no lasting effect in the school or the system, as many business people involved in such activities reluctantly acknowledge. The programs may have an immediate and exciting impact, like the splash when a rock hits the surface of a pond, but the effect is short-lived and quickly dissipates as funding and enthusiasm run out. A student's sibling in the classroom four years later does not benefit from the program — because nothing fundamental has changed.

Reform programs, as we define them, are directed toward long-term, fundamental school and system changes designed to create more effective ways for students to learn and teachers to teach. The concept is that we have to stop thinking of education in terms of teachers filling empty heads with knowledge; we must create a different sort of environment, similar to that of many private schools, where students are expected to work hard and take responsibility for learning and where teachers help students not only by providing information and facts (which they must continue to do), but also by leading students in discussion, monitoring their projects, and motivating the students to teach each other.

To change the traditional organization and lecture-style teaching of our public schools, we have to change:

- The way we expect students to learn (less individual competition, more cooperation and teamwork).
- The way teachers teach (less lecturing, more focus on finding out where students are and moving them to the next stage).
- The way school systems organize to support change (including, but not only, the way we organize the school day).

- The way we assess student achievement and evaluate teachers so that we get what we want out of the schools (testing may not measure the kinds of skills and knowledge we want schools to foster).

To create changes in each of these areas or within the entire system is to "restructure schools," and business can help only by developing systematic and effective reform programs.

But how do we get business leaders (and others within and outside the school system) to stop thinking that enrichment programs are sufficient for improving education and to begin developing rigorous change-making programs in the schools? What are the necessary steps to follow in making this transition? And, once a company has begun to fund and support a reform program, how does it extend its involvement? It's important that funders systematically evaluate the effectiveness of the reform efforts they support, discover ways to make them better, and then work to replicate good programs in other communities and states.

Moving Toward School Restructuring

We don't yet have a set of general rules or guidelines for effective school restructuring, much less a grasp of the most appropriate restructuring solutions for different kinds of educational environments.

And the obstacles to change are enormous — from genuine conflicts in educational philosophy to the entrenched interests of public school bureaucracies, from the fears and frustrations of individual teachers to the impatience of alarmed parents and future employers. Changes imposed from the outside on a set of unwilling participants will not produce results; successful systemic change, as organizational consultant Rosabeth Moss Kanter reminds us, requires a sufficiency of time, continuity, security, and resources, all commodities in short supply during periods of "crisis."

Nonetheless, reform experiments are going on across the country, and some shared goals are indeed emerging, along with an array of approaches and options. The challenge now facing business leaders is threefold:

1. *To know* what opportunities exist for educational reform.
2. *To choose* from available options the kinds of involvement most consistent with their own corporate interests and resources.
3. *To manage* their involvement in a way that adds to the fund of knowledge and experience that is so critical to creating an excellent education system.

The most effective role business can play in school restructuring is that of knowledgeable and critical supporter. Funders must know the issues, opportunities, and options well enough to make good decisions, and they must begin to invest their expertise as well as their money, seeking answers to progressively more difficult questions in order to develop restructuring efforts that can be replicated elsewhere.

In *School Restructuring*, we attempt to help business meet these challenges by looking specifically at the desired outcomes of school restructuring and at selected experiments under way to achieve those outcomes.

By discussing outcomes in terms of concrete efforts, we hope to identify some generally held tenets of restructuring, some of the pros and cons of different restructuring strategies, and some of the tough questions that must be asked if we are to learn from our efforts. The programs and approaches we have selected are not the only examples of efforts to change the way schools operate. There are many other approaches as well. But these examples illustrate many of the basic elements that must be addressed by school restructuring.

We then present suggestions to help business leaders choose entry-points into the education problem that are consonant with their corporation's own interests and resources, and programs that are feasible and effective with respect to local needs or a national context.

Finally, we hope to suggest that how businesses carry out or manage the projects they fund is crucial to their search for education solutions.

Chapter 1

What Restructuring Means

For over seven years, educators and government and business leaders have decried the American public education system, set a number of worthy educational goals for the nation, and suggested hundreds of ways to improve the schools. As we begin the 1990s, school reform advocates agree that to improve the quality of education our children receive, we must "restructure" schools.

But what does it mean to restructure a school or school system? Is there a connection between restructuring a school and making sure that all third graders in that school know how to read well? Would a restructured school be more likely to produce ninth graders proficient in the skills they need to enjoy their science classes? Would a restructured school graduate seniors better prepared to enter college or join the work force?

Most reform advocates believe that there is indeed a close relationship between how a school operates and is organized, and how well it educates its students. Therefore, we must understand the characteristics of a restructured school and how they might better ensure an excellent education for all students.

A useful definition of restructuring would include the following kinds of features:

- We change vital roles and relationships within schools and reorganize lines of authority.
- We establish a scholastic climate that values academic achievement and encourages active learning.
- We make schools accountable to students, parents, and communities.
- We foster alliances between schools and community- and human-service organizations.

To make these changes, we must operate on two levels. On one level, we redesign the political apparatus that surrounds schools and school systems and the management structure within schools. We move decision-making to the building site level, and we reevaluate state and local policies which affect school financing, teacher certification, high school graduation requirements, curriculum, and many other issues.

At the same time, and on another level, we change what happens inside the classroom so that children learn better, by improving the student-teacher relationship and by making sure that teachers know and teach their subjects well. Changes at the first level — of school governance and school structure — will not automatically produce changes at the classroom level.

Chapter 2

Why Restructuring Is So Difficult

Different Perspectives

Some of the frustrations reported by business leaders interested in supporting school reform stem from the profound differences in the perception of basic issues and time tables between those within the education system and those outside the system.

Within the education community, reform ideas are quickly solidified into the newest ideology, often imposed without much thought on an unprepared and unwilling school faculty. Teachers watch with dismay as each so-called new solution disappears as soon as the next idea appears. Meanwhile, those outside the education system assume that teachers and educators are not trying hard enough and worry about the widening gap between the quality of skills and knowledge workers and citizens need and the education schools are able to provide.

On this, too, there are different perspectives. Many teachers continue to believe that America's public schools provide high quality education, while businesses find that close to half their applicants for entry-level jobs cannot pass exams demanding seventh to ninth grade proficiency in English and fifth to seventh grade proficiency in mathematics. Even when discussing problems in public education, educators are apt to focus on the daily frustrations of the job. Business leaders and other outsiders, on the other hand, are concerned about the relationship between an inferior education system and America's inability to compete effectively in the world marketplace.*

Educators and business leaders also approach planning and scheduling from different perspectives. To most educators, school restructuring must be talked of in terms of a ten-year (or more) strategy, and real success of the reform effort would be measured by analyzing how well students succeed through a 12-year educational career. While business understands the complexity of restructuring schools and therefore the need for long-term systemic reform, it also looks for identifiable benchmarks to determine whether the effort is on target, what changes should be made to make it more effective, and how successful it is in reaching desired goals.

The restructuring effort is additionally complicated by an often contradictory mix of policy, attitudes, and practices. Schools are caught between two operating functions: to educate individual students on the one hand, and to batch-process groups of children efficiently through a 12-year sequence on the other.

Furthermore, unlike business, schooling is a public enterprise and its managers do not have the flexibility to introduce innovation, to eliminate ineffective programs and staff, or to change clientele. And, the school model — developed for a nineteenth century agricultural economy — is one with which educators, parents, and the general public are familiar and comfortable.

* For further information, see *The Metropolitan Life Insurance Survey of The American Teacher*, 1989; and *Business Response to Education in America*.

Changing Systems

Even with some consensus on the characteristics of a strong and productive education system, creating change is difficult and risky, especially in highly regulated, segmentalized bureaucracies like public schools. The very structure of the school system protects it against innovation, and those seeking to change schools must be prepared for opposition from many entrenched groups threatened by reforms.

Why else are school systems so difficult to change? An important reason, alluded to earlier, is that the need to reform is usually identified by those outside the system and the reforms themselves are imposed from outside the school. But no school reform effort can succeed without the commitment of teachers and administrators. Those at the school site must understand the need for change, establish realistic goals for students and teachers, and develop long-term strategic plans to reach those goals. And they must be willing to make the necessary commitments to reach those goals. None of these are easy steps to take. In her analysis of corporate restructuring, *The Change Makers*, Rosabeth Moss Kanter identified four elements needed to provide the stability critical to successful change:

1. *Time:* People must have time to keep trying, to learn from their experiences, and to accumulate and transfer experience.

2. *Continuity of people:* Unless the key people remain in place over an extended period, we cannot accumulate and transfer experience and make progress.

3. *A measure of security:* To have the necessary freedom and flexibility to attempt major change in a system, we must be able to count on a broad coalition that endorses and supports the process.

4. *A continual flow of resources:* System change needs more than good will and good intentions to happen; it needs funds, materials, space, and time. We must also understand and accept that the change effort will divert energy and attention from other areas.

In light of these requirements, school reformers really face two challenging tasks: to help develop a consensus for change within and outside the school and school system; and to help create a stable environment that encourages system changes so that schools can meet both immediate and long-term goals.

By examining characteristics of restructured schools, we can begin to identify ways that companies can help schools reach the broad national goals of a better education for all students.

Chapter 3

The Characteristics of Restructured Schools

If we are to redesign a school system or an individual school, we need to consider the changing roles and relationships of the four components of the present K-12 education system: the student's responsibility to learn; the teacher's responsibility to teach; the school administrator's responsibility to make decisions that support student learning; and the state's responsibility to make sure that each school provides every child with an excellent education.

We must also be willing to experiment with innovative approaches, to invest information, support, and resources in new initiatives, and to monitor both the progress and the results of these experiments.

Educators and school personnel, policymakers, business and community leaders do, in fact, share a common vision of the characteristics that constitute a redesigned school. It's a place where:

- **Students** take an active role in their education, accepting responsibility for learning.
- **Teachers** know and love their subjects and have the ability and freedom to teach all their students to learn well.
- **Administrators** are held responsible for the success or failure of their students, and decisions are made at the school site. Teachers are encouraged to try different solutions to their students' problems and to evaluate the results of these solutions objectively.
- **Assessment** tools are devised/revised to measure how well students learn, and teachers and administrators are prepared to help each student excel.

These characteristics also imply some fundamental changes of attitude and belief. As William Chance describes restructuring schools,

> It requires merging artificially separated curricular elements into a more logical whole. It extends to new conceptions of delegation, involvement and the empowerment of teachers. It raises questions about when children enter school and how they should progress through it. It changes the relationships between the system and the state as authority is delegated downward to the districts and the schools. It challenges the present age 6-18 conception of schooling, inquiring into the possibility of one that begins and ends earlier. It calls for the elimination of tracking and a new emphasis on core competencies for all students. It offers choice, for parents, teachers, and students.*

No school or school system has yet addressed all of these attitudinal and operational issues, but many schools are experimenting with some aspects of restructuring: developing

* "Changing the Terms of Discourse: Restructuring Education in America," pp. 8-9.

team-centered classroom and management models; linking teachers with small groups of students over extended periods of time; and moving toward competency-based academic programs.

How can we tell whether school restructuring efforts under way are on the right track? At this point, we have only fragmentary information. But one way to measure the success of school reform efforts is to focus specifically on how well we reach the desired outcomes for students, teachers, administrators, and policymakers within a changed system.

Chapter 4

Experiments in School Restructuring

It's worth restating the relationship between what outcomes we want to achieve and the characteristics of redesigned schools.

To increase student learning, we need schools and school systems where all students are actively involved in their learning and, as a result, learn not only basic skills but also how to analyze information, make connections, and solve problems.

To extend the capacity of teachers, we need schools where teachers are intellectual colleagues, discussing ideas and learning together. We need schools where teachers teach all their students well and, in doing so, control classroom decisions and are free to adapt material and techniques to each student's needs and abilities.

To create systems that support innovation, we need schools where the superintendent, principals, and staff share the goal of academic excellence for all students, develop the plan by which to reach the goal, and support each other in the process of achieving the goal.

To measure effectively academic success, we need to develop unambiguous ways to assess how well students are actually learning; we need an accountability and measurement system that matches the goals and objectives of the restructured school and school system.

In *A Place Called School*, John Goodlad said, "We want it all." And we do.

What can be done to reach these highly idealistic outcomes?

To answer that question, let's look individually at the primary activities of a school system — learning, teaching, administration, and assessment. We begin by analyzing the desired goals for each endeavor, and move on to describe examples of efforts under way to meet these goals.

Outcome: Increased Student Learning

The primary goal of education reform is to increase student learning, such that students master their course work and achieve the academic skills of high reading proficiency, problem-solving, clear writing, mathematical competence, critical thinking, and applying scientific methodology. By increasing the quality of what and how students learn, we are better preparing them for higher education and careers in the workplace.

What helps students learn well? We know that students learn better when they are actively involved in their course work, when they are assured their teacher cares whether they understand the material, and when they are confident that they are able to learn. We also know that not all students learn the same way, not all subjects can be taught by the same methods, and not all teachers are comfortable with the same teaching style. Most importantly, we know that academic success takes hard work and concentration.

Applying this knowledge to the classroom, we can conclude that teachers need to work with fewer students over several years and, sometimes, teach several subjects. Teachers need time to analyze student mistakes individually and, with their students, identify underlying assumptions that often cause misunderstanding. Students need to become responsible and accountable for their education.

We cannot afford to believe that there is one single approach, in either traditional or restructured schools, which, once discovered, will magically provide all students with an

excellent education. But, by looking at schools that have begun to change the way they operate — including the *Coalition of Essential Schools*, the *Key School Project* in Indianapolis, the *School Development Program* of the Yale University Child Study Center, the *Corporate/Community School* in Chicago, and the *Public School Academy* and *Chiron School* in Minneapolis — we can identify some fundamental components of improved student learning. In each of these experiments, the basic features are embedded in a slightly different overall strategy of restructuring.

The Coalition of Essential Schools

One of the best-known reform efforts focused on teaching students how to think is the *Coalition of Essential Schools*, a national network of over 105 schools in twenty states founded by Theodore R. Sizer in 1984. Essential Schools are grounded in the belief that all students, not just those who are college-bound, can learn to use their minds well. To reach this goal, the schools concentrate on a few "essential" subjects and do not offer a smorgasbord curriculum; teachers use a variety of teaching methods to encourage students to think for themselves; and students become "active learners," responsible for their education.

Sizer argues that instead of implementing a single model for Essential Schools, each school is free to organize and develop its own program based on a common set of nine general education principles. However, most Essential Schools maintain a relatively low student/teacher ratio, extend classes beyond the usual 50 minutes, use coaching or leading discussions in preference to lecture-style teaching, and assess students' mastery of course content by essays and exhibits rather than by multiple-choice tests.

When Essential Schools thrive, they produce results: the number of dropouts decreases, class attendance increases, test scores are up, more graduates go on to college, and, equally important, teachers and students become excited about learning. A much-touted example of success is Central Park East Secondary School in East Harlem, New York, an Essential School since 1985. A dramatic example of their success is that, in four years time, students' reading scores improved from the lowest in New York City to 63 percent reading at or above grade level.

Yet, there is opposition to Essential Schools and it comes from many sources. Teachers are threatened by curricular changes, alternative ways of teaching and evaluating students, and the need to develop new kinds of relationships with their students. Principals and supervisors are uncomfortable with the confusion and noise that often accompany spirited student discussions. Parents, too, may be baffled by the fact that in an Essential School some courses traditionally taught during the school day may become extra-curricular options or disappear altogether.

In many cases Essential Schools exist within traditional schools, a small contingent of teachers and students willing to experiment with high academic standards, hard work, and alternative approaches, and struggling each year to keep the experiment alive. Some fear that the Coalition of Essential Schools' nine principles may limit rather than expand opportunities for teachers and students to learn, requiring rigid adherence to specific teaching styles

or assessment strategies, rather than encouraging the best match for subject area, teacher, and student.

In spite of these difficulties, the Coalition of Essential Schools offers an exceptional blueprint for restructuring schools and, with substantial new funding from Citicorp, Southwestern Bell, and others, is expanding. Re:Learning, a six-state effort to develop at least sixty restructured schools, is under way with help from the Education Commission of the States.

IMPLICATIONS OF THE ESSENTIAL SCHOOLS PROGRAM. Successful Essential Schools provide us with some of the qualities that characterize most restructuring efforts: students are expected to take responsibility for learning; small student/teacher groups are created and kept in place over a long period of time; a strong principal is willing to build trust, understanding, and support among teachers and staff; teachers are trained and encouraged to teach cooperatively and through a variety of different approaches. However, since the success of these schools depends upon supportive local and state authorities willing to suspend those regulations that interfere with necessary reforms, we must be prepared for new administrators who challenge an Essential School's autonomy.

Although Essential Schools focus on academics, the experience of a small group of students and teachers working closely together is almost familial. Students describe how important it is for them to have a teacher who knows them and cares about how well they perform. We need to consider, then, what changes will be necessary when an entire high school of 2,000 students reorganizes along Essential School principles.

Another important feature of the Essential School, rarely mentioned, is that the program must have stable student and teacher populations to provide the continuity needed for intellectual development and growth. If students are continually absent from class or transfer in and out of different courses, a teacher could not structure a class that depends on the students themselves to lead discussions, make presentations, or debate a critical issue. Likewise, if faculty changes are frequent, a teacher would be unable to develop portfolio evaluations of the educational progress of individual students.

The Key School Project

On a typical school day, children at the *Key School* in Indianapolis study reading, mathematics, science, and social studies — just like students in most American elementary schools. But, as part of their general education program, Key School students also spend time in acting class, architectural drawing, improvisational dancing, Spanish, and computer applications. For many students, even that is not enough and they choose to participate in after-school electives like photography, computer graphics, chess, gymnastics, and tap dancing. As one student says, "It's fun going to school here because there is so much to do. You don't get bored."

The idea for the Key School evolved through the conversations of eight elementary school teachers puzzled by "the strange behavior of children: how they can be so wonderful in some areas and so abominable in others." The teachers observed teaching and learning in their own classrooms and studied the work of educational scholars. After developing a spe-

cial curriculum for gifted students based on Harvard psychologist Howard Gardner's theory of multiple intelligences, they convinced local school authorities to let them create a public elementary school for students with a variety of abilities — designed to allow each child to discover and cultivate his or her strengths. Also influencing their thinking was John Goodlad's proposal in *A Place Called School* to create "key schools" whose "special function is to serve as centers for developing practices not now established, practices involving some risk-taking and requiring special cultivation." From Goodlad's proposal came the school's name.

Three critical changes had to take place before the school could function in a way that strengthened and improved the full range of children's abilities. First, specialists were hired to augment the teaching staff so that all instruction would be done by those competent in specific areas. Second, days were divided differently to provide students with educational experiences beyond traditional cognitive learning, and classes were organized around six- to nine-week themes which allowed teachers to integrate their courses. And third, teachers and staff collaborated closely to develop a curriculum and assessment procedure that would translate the themes into enriched learning.

In addition to changes in staffing, scheduling, and approaches to teaching and assessment, the Key School demonstrates several other important restructuring elements: classes are small and students are expected to take responsibility for their learning; the principal teaches some classes and teachers work together as a team; parents are required to attend three of four parent-teacher meetings a year, and to participate in school day or after-school activities; students are evaluated by means of video portfolios that include student interviews and individual projects as well as by the results of standardized tests; and business and community leaders are closely involved in traditional partnership activities as well as in curriculum planning and development.

Not only does the Key School benefit from highly committed staff and parents, but since its founding in 1987, it has had the advantage of an unusually stable student population and professional staff. In those three years, only two new teachers were hired — one for the new preschool program, and one to replace a teacher promoted into administration. And in the 1989-90 school year only 4 of the 170 students transferred from the school.

The Key School functions as a public elementary school and has received no special waivers from Indiana school requirements. Its students have performed well on the state's standardized tests, as well as on internal assessments like video portfolios, interviews, and subject-mastery projects. Research is under way to compare the success in junior high school (and possibly into high school) of Key School graduates with students who applied to the Key School but had not been selected in the lottery.

IMPLICATIONS OF THE KEY SCHOOL PROJECT. Because of its unique reliance on a specific theory of education, the question we need to ask about the Key School becomes: What elements from this project can we use to restructure other elementary schools? Although most schools may not be interested in creating curriculum specifically designed to develop seven multiple intelligences, they may want to incorporate and adapt some Key School practices.

Like Essential Schools, the Key School Project exhibits many characteristics we seek in restructured schools: students responsible for their learning, cooperative teaching and learning, use of different teaching strategies, close student/teacher relationships, and alternate methods of assessment and evaluation. In addition, the Key School emphasizes interdisciplinary curriculum development and collaborative professional development.

Both student and teacher populations at the Key School have been remarkably stable, and parental support for innovative approaches to teaching and learning has been strong. Such stability and support are critical elements in the success of the Key School because they allow students to benefit from a variety of assessment methods to evaluate their progress: standardized tests, mastery projects, video portfolios, and interviews. They also encourage faculty to experiment on different approaches to coursework and students.

The School Development Program of the Yale Child Study Center

In the early 1960s, child psychiatrist James P. Comer began to study the conflicting relationships between expectations and experiences within home and school environments. Comer was particularly interested in learning how the contrast between home and school affected a child's social development and academic achievement. He and his colleagues at Yale University's Child Study Center believed that many poor and minority children failed academically because no one helped them bridge the social and cultural gaps between home and school.

In 1968, Comer began testing his theories through an intervention project established at two New Haven, Connecticut, elementary schools where the students were 99 percent African-American and over 70 percent came from homes receiving Aid to Families with Dependent Children. Project members studied the children's social development in the context of their relationships both within the school — among teachers, administrators and students — and between school and home. After the first year, Comer says, "it became obvious that we would make no progress until we had reduced the destructive interactions among parents, teachers and administrators and given cohesiveness and direction to the schools' management and teaching."*

First, each school established a governance and management team, led by the principal and made up of elected parents, teachers, and school staff. Through consensus and cooperation, this management team developed school goals, objectives and operating plans, and it created a full calendar of academic and social activities to encourage parental and community participation in the school.

To address student behavior problems more completely, each school also created a mental health group consisting of the school psychologist, social worker, and special education teachers. This group, with a representative on the management team, was able to respond quickly and decisively to student needs, to anticipate some problems before they occurred, and to recommend important changes in school policies and procedures.

The third component of the Comer process was strong parental participation. Although the most powerful parental influence comes from those who help set policy as members of

* James P. Comer, "Educating Poor Minority Children," p. 46.

the governance and management team, many parents in the school development program volunteered as classroom aides, tutors, and office help. Working parents and others unable to commit sustained blocks of time were invited to attend all school activities, both during the day and after school hours. In New Haven in 1989 over 90 percent of the parents living in the nearby housing project visited their child's school at least ten times.

After twelve years, the "Comer schools" have had significant successes: the number of behavior problems has declined; attendance rates are among the top five in the city; and students' social skills and self-discipline have improved dramatically. Academic gains have been equally impressive: Once ranked the lowest achievers in all thirty-three city elementary schools, by 1984 fourth graders in the first two Comér schools ranked third-and fourth-highest in New Haven on the Iowa Test of Basic Skills.

More than one hundred schools from New Haven (with thirty-five) to Lee County, Arkansas, and Prince George's County, Maryland, have reorganized using the Comer process. With recent funding from the Rockefeller Foundation, Comer's program will influence an even broader segment of the student population.

It's interesting to notice that although students in Comer schools achieve far beyond their counterparts in inner-city schools with similar student populations, the model does not specifically address academics and curriculum issues. Instead, it places academic and management decisions in the hands of a team of parents, teachers, and staff, who attend to students' needs by developing close relationships among those within the school and between school and home.

IMPLICATIONS OF THE SCHOOL DEVELOPMENT PROGRAM. There are some remarkable similarities among the three restructuring projects described so far: close teacher/student interaction, cooperative teaching and learning, students empowered to learn, and, in the elementary school programs, parents linked closely to the school.

A critical feature of Comer's approach, however, is to deliberately create a bond between children and the adults in their lives at home and at school, and between the groups of adults. Obviously, it is impossible for a child to bond with adults in school and home if the student and adult populations are not stable. Neither can the kind of bonding Comer talks of happen for the child who moves several times a year, who has "rotating teachers" at school, or whose family life is marked by sudden appearances and departures. We also need to consider what happens to students when they leave a Comer-style elementary school and enter a traditional junior high or high school. What kinds of support do these students need as they continue through their education experience?

Corporate/Community Schools of America

The *Corporate/Community Schools of America* (C/CSA) were created not by a noted educator or child psychiatrist, but by Chicago businessman Joseph Kellman who left school at 14 and now runs a $100 million business. Kellman believes that with the right combination of qualified teachers, caring adults, and resources, children from the poorest inner city neighborhoods — those usually written off as least likely to succeed — will flourish academically and socially.

The first Corporate/Community School opened in 1988 in Chicago's North Lawndale district, an extremely poor neighborhood where 84 percent of the children are born to unwed mothers, 75 percent have urgent dental problems, and 10 percent are malnourished. Children from this neighborhood, chosen at random by computer to attend the school, find themselves in small ungraded classes with teachers who help them learn responsibility by working closely with each other and by solving their own problems.

The underlying principles of the Corporate/Community School concept are three:

1. Everyone at the school believes that all children, regardless of economic or racial background, are capable of learning well and that teachers are able to teach them to succeed academically and socially.

2. The school encourages a family focus. When a child is selected to attend C/CSA, any sibling between ages 2-13 automatically joins the school. Parents are encouraged to take literacy classes or other adult education classes that can lead to high school degrees, to volunteer to help teachers or staff, and to become advocates for their children's education. A full-time staff member at the school helps all family members with health and social services — housing, welfare, police, and so forth. The school, open from 7 A.M. to 7 P.M., has become a community center.

3. The management structure of the school is based on teamwork from highly qualified staff led by a strongly committed principal. Over sixty Chicago businesses have contributed to the school, and a paid board of directors, made up of business, civic, and education leaders, has oversight authority handling school financial, personnel, and management decisions.

The Corporate/Community School helps each child achieve his or her highest potential, focusing on individual needs and evaluating progress through individual accomplishments. Teachers and staff work with students to develop plans to help them build on their existing strengths and to acquire new ones. An excellent attendance rate, teacher observations, and parent survey responses indicate that students are enthusiastic about participating in school activities. But because the school is only in its third year, we do not have statistical data illustrating academic success; however, there is no doubt that the school has changed the lives and expectations of many of its students and their families.

IMPLICATIONS OF THE CORPORATE/COMMUNITY SCHOOL. The Corporate/Community School links many academic features of the Key School Project with the social development aspects of Comer's approach, creating a program that concentrates on the child's potential for success through close ties between family and school. Critics point out that because C/CSA was created and paid for by business, it has unfair advantages over public schools: The school is not saddled with the problem of incompetent, but tenured, teachers and principals. Not only was the school building repaired and maintained, but teachers also have ample supplies and clean classrooms. And instead of having to respond to mandates from the district office, teachers and staff are responsible for setting and reaching their own

goals and objectives. These advantages make it unlikely that C/CSA can be readily adapted by public school systems in most communities.

The Minneapolis Public School Academy

With funding from the General Mills Foundation, the Minneapolis public school district opened the *Public School Academy* in 1988 with nine teachers and 140 students from kindergarten to fourth grade.

Concerned that city schools were unable to serve both the best and the least able students, and with some evidence that the compensatory programs were exacerbating the problem, General Mills proposed an alternative to the school district: use money normally spent on compensatory programs for smaller class sizes, involve teachers in the decision-making process at the school, and actively bring parents into the education process. The company would then fund the balance between the current school system's expenses and the cost of smaller class sizes.

The Public School Academy features two classrooms for each grade level (keeping a student-teacher ratio of 14 to 1) with teachers responsible for teaching all subject areas; in other words, no student is ever taken out of class for special instruction in art, music, math, or other compensatory services. The principal and teachers make up the school management team, deciding how the school is run, what is taught, and how best to teach students with varying interests and abilities.

Both students and teachers at the Academy benefited from the smaller class sizes. Students were able to participate more successfully in classroom activities and be recognized for their achievements. They worked cooperatively in subject areas and benefited from cross-age tutoring. Teachers were more aware of each student's needs, could more easily monitor progress and tailor individualized instruction as needed. And, as in most experimental schools, parent-teacher communication increased significantly.

Because the Minneapolis Public School Academy set out to test the thesis that lower student-teacher ratios would improve student achievement, assessment has been an integral aspect of the experiment. Using the California Achievement Test (CAT) as well as school district Benchmark Tests, the Academy reported substantial improvement in student test scores from Fall 1988 to Spring 1989. In reading comprehension tests, the percentage of third grade students who scored in the lowest 40 percentile dropped from 61 to 22 percent, from 73 to 50 percent for second graders, and from 48 to 45 percent in the fourth grade. Mathematics skills also improved: the percentage of students in the lowest 40 percentile in national comparisons decreased by 34, 35, and 29 percent at grades two, three, and four, respectively. In addition, the rate of student attrition declined dramatically; only eleven students, or 6 percent of the student population, left during the school year, as compared with mobility rates of 28.5 percent for the school district as a whole.

By standardized test scores as well as by student, teacher, and parent perceptions, the Public School Academy is already a success story. But what will its future be? General Mills made a three-year commitment to support the school, and expects the school system to carry on with the project after the 1990-91 school year.

IMPLICATIONS OF THE PUBLIC SCHOOL ACADEMY. The Minneapolis Public School Academy's small classes, cooperative teaching and learning, and team management approach are by now familiar characteristics of restructured schools. But while teachers rate their job satisfaction as high and praise the new level of trust and respect they have for their colleagues, their jobs have become more intense and the decision-making process more time-consuming. Will they sustain their attention to the individual academic needs and progress of their students? And some school board members are especially skeptical about the trade-off between what they perceive to be modest student successes and the considerable expense of maintaining small classes. Although many parties are hopeful that the Academy will be institutionalized in the system, at this point it seems unlikely that Minneapolis will use the model for other schools in the district.

Chiron Middle School

Another experimental school in Minneapolis, the *Chiron Middle School*, is a community-based program for 120 students in grades five and six (eventually expanding to 300 students in grades five through eight). Chiron School was created by real estate developer Ray Harris and a steering committee made up largely of Minneapolis business and community leaders in response to a call for new school concepts by the public school district.

Opened in Fall 1989, Chiron features three fundamental changes from traditional schools: the teacher-student relationship is individualized and intensified; the curriculum is based on real-life experience; and the school is managed by the Chiron Management Council, a committee of teachers, staff, parents, a school board member, and community representatives.

The most obvious change at Chiron is immediately apparent: there is no single school building. Classes rotate among several different sites, spending between 9 to 18 weeks in places such as hospitals, nature centers, government offices, local businesses, and the University of Minnesota's Institute of Agriculture in St. Paul. The curriculum is shaped by the classroom's location. For example, students meeting at a nature center would study plant life for science, nature writing for English, plant origins and distribution for geography, and so forth.

Each teacher, hired by merit not seniority, works with multi-age groupings of twenty students through a fifth-to-eighth grade curriculum which conforms to the school district's requirements. However, Chiron teachers create personalized lesson plans for their students, who progress at their own rates. Because there are adult volunteers at each community site, the adult-student ratio is about one to ten. School is in session for 12 months, and school days are longer, with vacations scheduled for students (and teachers) individually.

The Chiron Management Council makes decisions about everything at the school: how money is spent, which teachers are hired, how teachers are trained, where school sites will be, and how to develop meaningful curricula. As mentioned earlier, a district school board member serves on the Council, and the district board approves the budget, monitors the quarterly financial statements, and selects students who represent a cross-section of the city's population for the school.

IMPLICATIONS OF THE CHIRON MIDDLE SCHOOL. Project leaders hope that the Chiron School will become self-sufficient within three years and will no longer need private money to keep it going, and that it will not be an isolated magnet school, but will be replicated throughout the entire Minneapolis system. As might be expected in an experimental school such as Chiron, not everything has gone smoothly in its first year. The process of creating a new school takes considerable time and energy, and many teachers admit they need that time and energy to develop curriculum and design courses. And teachers as well as students have expressed some reservations about the nontraditional curriculum and methodology.

Conclusions: Some Essential Characteristics of School Restructuring

Each of these examples illustrates different ways we can change schools to help increase student learning, but they share several essential characteristics:

- Small classes
- Dedicated teachers
- Extended interaction between teachers and students
- Shared decision-making

Also desirable but not always present are:

- A stable student and faculty population
- Effectively smaller schools
- Consistent family involvement

It is too early to have much data on how well students learn in these experimental restructured schools. Is their rate of academic success better than that of their peers in traditional schools? What happens to them when they transfer to other schools or when they move from a reform-style elementary school to a traditional high school? Do they do as well in science as in English? Are they more likely to graduate from high school? When they graduate, are they fully prepared either to enter the work force or to continue their education beyond high school? What is their rate of success beyond high school?

These questions are obviously related to the fourth outcome of school restructuring, which will be discussed later in this chapter: developing effective assessment tools to measure the kind of learning we want schools to foster and to evaluate accurately what happens to students in these experimental school reforms. Most of the examples described above have not begun the kind of thoughtful examination necessary for us to be able to answer the questions with much confidence.

As funders, we need to begin to consider ways to move the restructuring programs we support to their next logical steps. In most cases, this means we must become deeply

involved in the programs and the issues they address over a long period of time. Such sustained commitment provide us both the expertise and the opportunity to ask the necessary hard questions that will help develop and extend the reform effort.

Since the examples provided in this section are still in their incubation stage, we need to understand better some of the issues they must deal with before they can expand. For example, teachers and administrators are involved in these restructuring projects by choice. How well would the efforts fare if they were mandated by a school district? What changes need to be made at the elementary school level to prepare students for high school programs like the Coalition of Essential Schools? What support network needs to be put in place to help students from Comer schools move successfully into junior and senior high schools? Or, to put it in a broader context than the Comer schools, do we need to begin to find better ways to address the social needs of all high school students?

One characteristic of each of these programs is the willingness and ability of teachers to individualize instruction and to experiment with different teaching methods. These experienced and interested teachers are retrained in the principles and expectations of the programs. We need to begin thinking more strategically: How can we best prepare future teachers to teach in a restructured school? What changes need to occur in teacher education, as well as in the professional development of teachers?

Many of the changes we have seen in these sample reform efforts are vital to creating a school environment that enhances student learning, but none of them directly addresses an issue central to increasing student learning: What do teachers know, and how do they teach it?

Outcome: Extended Capacity of Teachers

A key element of school reform is changing teachers' roles and responsibilities to strengthen the quality of education a school provides. To extend the capacity of teachers, we need to help teachers learn more and keep abreast of their subjects. We also need to help teachers control their time, curriculum, and classroom presentations, develop long-term relationships with their students, and receive support from their central offices, particularly when they are employing innovative teaching strategies.

In the most practical terms, teachers cannot teach effectively without time for planning and preparation and without uninterrupted class time to allow active student participation in the lesson. They cannot give students individualized help, both in discussing subject matter and in evaluating course work, unless class size is reduced dramatically. Successful teachers are well-grounded in the subject they are teaching and are encouraged to explore a variety of ways to involve students in the course work. A basic change that must occur in schools, therefore, is that we schedule time for teachers to prepare for classes, to work with students, and to meet with other teachers to discuss ideas, plan academic strategies, and share effective ways to reach their students. We also need to create a school schedule that avoids hourly announcements over the intercom and extracurricular activities that interfere with classes.

If we expect teachers to do a better job of teaching all their students, including those

who have traditionally been left to drift, we must encourage them to explore innovative teaching methods and to work cooperatively. The examples of restructured schools in the previous section illustrated the central role of teachers in helping to increase student learning. In the following examples, teachers' roles and responsibilities are extended through developing their professional expertise as well as their social and academic interactions with students.

National Faculty: Developing Expertise

In the educational world, "professional development" usually refers to one-day in-service workshops often led by outside experts who sometimes, but not always, are trying to sell the latest classroom management strategy, curriculum plan, or even textbook materials. Experienced teachers have become increasingly wary of in-service training days, expecting prepackaged solutions to problems they may not consider a priority in their own classrooms. The *National Faculty of Humanities, Arts and Sciences,* by contrast, works with teachers in their own schools to determine what their needs and resources are, and what kinds of training and projects will best serve those needs.

For over twenty years the National Faculty has addressed one of the most important issues in schooling: improving what teachers know, and expanding the ways they can teach it. Through a variety of projects, the National Faculty helps teachers in the classroom teach better.

National Faculty programs are based on the premise that good teaching is not an elusive concept. Good teaching occurs when teachers know their subject matter thoroughly and love teaching what they know to their students. Good teachers value curiosity and learning. They read books and are challenged by new ideas, and, in turn, they introduce students to the excitement of discovery and give them the tools for learning.

The National Faculty is unique in the education arena: it offers no predetermined agenda or set of solutions to problems in the schools, and it promotes local ownership of every project. Whether working with a single school, a national or state program, or a school system, National Faculty involvement follows a similar process. With the assistance of National Faculty staff and outstanding college professors, an assessment is made of the local needs and resources at the school site. A team of teachers and administrators is formed in the school to work together on projects they help design for their individual setting. The intent of the project is to build a network of collegial groups which can find practical and effective ways to teach better through study, discussion, and hard intellectual work.

For example, teachers in Batesville, Mississippi, were concerned about their students who, as high school freshmen, read at the fourth grade level. Despite grave doubts about their ability to change the educational future for their students, the teachers worked with members of the National Faculty to develop a language arts program for the district. They made presentations to the Mississippi Council of Teacher of English, joined the Mississippi Writing Project, designed a textbook based on state authors, and organized a symposium which featured several well-known Mississippi writers: Barry Hannah, Margaret Walker, James Seay, and Ellen Douglas. The teachers' enthusiasm for their work was reflected in dra-

matic changes in student performance. On state-mandated basic skills tests, Batesville students topped the state in every category, and their scores on the California Achievement Test rose 24 points.

In another case, the National Faculty worked with the North Carolina Department of Public Instruction to develop a state history project after the state legislature mandated a new state history course for all eighth graders. The three-year program included summer institutes, National Faculty scholar visits to school sites, and the involvement of local college and university faculty who served as ongoing resources for the teachers. After extensive work with teams of anthropologists, political scientists, artists, historians, poets, folklorists, and writers, the teachers composed an interdisciplinary instruction manual to use in their classes with the required text. The state history course thus became a context for developing students' language and thinking skills.

A National Faculty scholar summarized the key to the effectiveness of National Faculty enterprises when he said, "Teachers talked from day one with that double sense of personal investment: 'I want and deserve my own education. I need time to think; I need a chance to learn more about subjects and myself,' and professional concerns: 'How can I bring this into the class? How can I reach those strangers among the students who always evade my efforts?'"

IMPLICATIONS OF THE NATIONAL FACULTY APPROACH. Whether working with teachers in individual schools or developing a statewide program, the National Faculty focuses on needs as identified by teachers and, with teachers, generates ways to make what happens in the classroom a useful learning experience for both students and teachers.

National Faculty programs are based on the belief that effective teacher development requires the long-term commitment of teachers and administrators who work together to address school, personnel, and curriculum issues. Through its projects, the National Faculty has found that outsiders cannot ultimately be effective as consultants unless they become colleagues and coworkers in a common, developing project.

Rochester, New York: Connecting with Students

In its report on the Rochester school reform effort after two years, the *New York Times* quoted a high school junior who credited the program for his remaining in school: "The teachers never used to pay attention to you, never talked to you as a person. Now they come up to me and see if I need help. They seem to want me to do better, and that makes me want to try harder."

Essential to Rochester's school reform were dramatically changed roles and responsibilities for teachers. In conjunction with a 53 percent pay increase negotiated by the teachers' union, the contract specifies that teachers will make curricular and management decisions as part of school planning teams, new teachers will be counseled and helped by veterans who serve as mentors, and almost all teachers will be actively involved in their school's home-base guidance program.

The home-base guidance program, designed to reach all the students in each school, is based on a promise by teachers to mentor twenty students a year, keeping in touch in per-

son, over the phone, and through visits to the child's home. The teachers keep track of their students' course work, talk over problems, check attendance, and counsel students about courses, college choices, and careers. They also help students with summer and part-time jobs and find ways to involve parents with school activities. All of this attention is directed toward helping students better understand their options and take responsibility for their decisions now and in the future.

In spite of successes like those described to the *Times* reporter, both teachers and families have found the new roles in the guidance program difficult. Racial differences are a critical factor. The student population is 75 percent African-American and Hispanic and the teaching staff is 75 percent white and lives in the suburbs. Many parents feel that white teachers are not really committed to their child's academic success; white teachers are uncomfortable or frightened visiting their students' neighborhoods and homes. In addition, some teachers resent the additional time it takes to meet their new responsibilities.

IMPLICATIONS OF ROCHESTER'S HOME-BASE GUIDANCE PROGRAM. Among the many aspects of schooling which are now undergoing substantial restructuring in Rochester, the teacher/student relationship may be one of the most critical and more difficult. As illustrated by the earlier description of the Comer process in several elementary schools, paying attention to a student's social development can have a positive effect on his or her academic achievement. But formalizing a teacher's responsibilities toward students through the union contract has had mixed success in Rochester. In the early grades, where the teacher-student relationships develop throughout the school year, the home-base guidance program has helped many children gain new self-assurance. Even in Rochester, however, high school teachers are reluctant to shift from a traditional mind-set of "We teach subjects, not students" to a more personal involvement with the student and his or her academic and social development.

Model School Project: Cooperative Teaching, Cooperative Learning

Changed teacher/student relationships are also part of the *Model School Project* (MSP) at Park West High School in Manhattan, New York. MSP is made up of two components: the Comprehensive Math & Science Program (CMSP), a highly structured approach to mathematics instruction designed to increase the pool of students with high mathematical achievement, and the Reading/Writing/ Research Program (RWRP), a still developing cooperative learning approach to communication and language arts. In both major subject areas, a team of teachers works closely with the same group of students over two years in classroom settings as well as in one-to-one tutorials and consultations.

The Comprehensive Math & Science Program, a field based research and development program initiated in 1974, was created on the principle that all students can learn math very well, given the foundation and academic support they need. In the CMSP model, two teachers work with the same small group of students in several classes, helping them understand and master the subject, and developing a tutorial model directly related to the courses. Through bi-weekly tests, teachers and students know immediately how well the material has

been understood. If a test is failed, students (and their parents) are notified that extra work is necessary, and through after-school and Saturday tutorials students master one lesson before moving to the next. A student's success in mathematics is assured by the close monitoring relationships between teacher and student, teacher and parents. These relationships are enhanced by the daily exchange of ideas and information among the teachers working with the same students.

In many ways the Reading/Writing/Research Program parallels the CMSP model. Three teachers plan courses designed to complement each other and reinforce a subject area for the same small group of students. They work together designing curriculum and monitoring their students' academic and social development. In reading class, students learn to analyze and discuss articles and stories, working together in pairs or groups of three. All writing — on topics assigned in the reading class — is done on computers, and students help each other not only with style and communication but also with word processing skills. The research class expands and develops writing and reading topics, teaching students how to find and evaluate information. Throughout the three courses, students work cooperatively with each other, with their teachers, and with tutors in after-school and Saturday classes.

IMPLICATIONS OF THE MODEL SCHOOL PROJECT. Teachers' roles in the Model School Project exhibit many of the changes evident in earlier examples: the teachers themselves identify and solve problems; they work as a team dealing with both curricular and student issues; they maintain close contact with students, encouraging their success. Most of the problems with the Model School Project as implemented at Park West High School stem from its placement within a traditional school setting. Teachers involved in either CMSP or RWRP work together as a close-knit team, but there is some tension between them and other teachers in the school. Decisions that MSP teachers make are crucial to their programs and their students, but they affect only that discrete unit within the school. In an important sense, however, the Model School Project illustrates the effectiveness of teachers working closely together to develop courses and programs that provide students with an excellent academic grounding in subject matter.

National Network of Educational Renewal: Creating Laboratories for Change

The task of restructuring schools will become Sisyphean unless we link it closely with educating and preparing new teachers and school administrators. In 1986 John Goodlad and his associates at the University of Washington established the *National Network of Educational Renewal* (NNER), a network of school-university partnerships designed to improve simultaneously schooling and the education of educators.

Members of the network strive to make schools the center of change by providing future teachers with exemplary sites which demonstrate how schools function and with a variety of teaching experiences. They develop curricula that reflect student needs and identify ways to assure all students access to these curricula. The school-university partners seek to redefine the roles and responsibilities of teachers, administrators, and faculty to ensure continual school effectiveness.

NNER believes that the education system, from schools through universities, can reform itself by developing the conditions and capacities for change through close collaboration between schools and departments of education. As with many other examples noted in this report, we need to keep a long-range perspective when we examine the success of this network. During the first years of any partnership, participants must develop mutual goals, establish and modify their roles, and frequently check the health of the relationship.

IMPLICATIONS OF THE NATIONAL NETWORK OF EDUCATIONAL RENEWAL. A recent evaluation (1988) of the fourteen partnerships in the Network revealed that, in principle, they remain committed to the idea of simultaneously reforming schools and teacher education through closely coupled school-university connections. In practice, however, many of the partnerships have faltered because they have not clearly defined their goals and purposes, have sought to diminish the role of one or the other partner, or have failed to encourage broad support from others in the school districts and departments of education. Schools and universities have different cultures, bureaucracies, and educational agendas and objectives, which must be understood and acknowledged in developing an effective partnership.

Unlike the National Faculty projects, NNER focuses on pedagogy and curriculum rather than on increasing a teacher's knowledge of subject area, and school connections to the university are limited to the departments of education. It may be useful to consider ways to renew not just the pedagogical process and the organization of schools but also to focus on how well teachers know and communicate their subject areas to their students.

Conclusions: Teachers as the Key to School Change

We cannot accept the notion that by managing the educational process differently, we automatically make teaching better. Instead, we must work with teachers to define problems and find solutions, help them develop emotional and caring as well as academic relationships with their students, and provide them the opportunity to work together, teaching each other effective ways to communicate ideas to students.

Teachers are the key to schools that successfully educate their students. The programs described in this section illustrate several areas where we can extend the capacity of teachers. For example, we know that to be effective, teachers must not only be absolutely grounded in the subject they are teaching, but they must have a deep desire to communicate that subject matter to students. The National Faculty links teachers with scholars in several ways, all directed toward helping teachers develop areas of study they want to pursue, ways to create a richer curriculum, and the most effective methods to teach what they know. Through its university/school district connections, the National Network of Educational Renewal also helps teachers discover the best ways to reach all students and help them learn successfully.

Most of the programs described so far emphasize the fact that teachers need to care about their students and how well they learn. As teachers in Rochester, New York, are discovering, they are often obliged to develop close contact with their students and sometimes

with their students' families. Teachers must also work closely with other teachers on subject matter and issues concerning the students, creating classes and lessons that can challenge students with different interests and abilities. When it works well, as with the teachers in the Model School Project, the students benefit by extending their own capacity to learn.

These are different teaching models, particularly for high school teachers, than we are used to seeing. As we begin to support strategies that help teachers maintain closer contact with students and their families, we must look beyond specific programs to broader issues. What responsibilities in addition to academics should schools be assuming? In what ways should we try to link schools with social service agencies? How would the teacher's role change in such a setting? Many teachers already worry that their jobs are becoming increasingly like those of social workers. If we expect them to assume additional responsibilities, what staffing and reward changes are we prepared to make?

In addition to developing closer relationships with students, we also expect teachers to work together to develop curricula and to experiment with different ways of teaching students (in interdisciplinary classes as well as within a single subject area). In many of the programs described thus far, funders already support workshops and training institutes for teachers, but if restructuring efforts are to expand beyond a single school, we must begin now to tackle some more difficult issues in teacher training. Consider, for example, that most teachers involved in these programs are already committed to changing their classrooms, schools, and school systems. What kind of training programs will be effective for those teachers in schools where restructuring was not a local decision but was mandated from a district or state? And, even more importantly, how can teacher education be reformed so that future teachers are prepared to teach well in restructured schools?

Promoting effective teaching is not simply a matter of doing a better job of preparing future teachers or retraining current faculty. School calendars must be changed to provide the flexibility that encourages close attention to individual students; school systems must be organized to permit teachers the necessity — not the luxury — of thoughtful, independent study, as well as less formal education opportunities. In most schools, teachers are rewarded when they process children through the system, not when they experiment with different teaching styles or curricula in an effort to reach all their students.

If we are serious about reforming education, we must begin by extending the capacity of teachers (making sure they are in the classroom because they love their subject matter, are deeply committed to teaching it to children, and care whether or not children learn), by creating a school environment that encourages and supports them, and by rewarding them for how well their students succeed.

Outcome: Create School Systems that Encourage Innovation

To many people school restructuring is synonymous with school-site management and shared decision-making. It's easy to understand the reasons behind this assumption. When we consider the success or failure of any organization, we are quick to assign credit or blame to the way it is managed. And even without reference to the model of Japanese team man-

agement, Americans tend to believe that the democratic participation of all parties is preferable to autocratic bureaucracies. When we realize that an industry or system is not producing the results we expect, we often seek to bring into the decision-making process those more deeply involved in day-to-day operations, thus giving them ownership of ideas and practices which will, presumably, bring about the success we want.

Therefore, shifting from top-down management style to participatory democracy in the school system seems absolutely right: teachers and staff know students' academic needs and the social context within which these needs exist. It follows, then, that a group of teachers, staff, and parents can more effectively create programs that address a school's particular academic requirements. Our tendency, however, is to assume that once we institute site-based management/shared decision-making in a school, we have done all that is necessary to increase student learning.

In reality, however, site-based management/shared decision-making is useful, but not the only tool for reorganizing roles and responsibilities within a school. When accompanied by decisive leadership and strong support, the tool of decision-making teams can help create an environment in which students learn well and teachers have the freedom and power to develop and use effective strategies to teach students.

Drawing from points made by Phillip Schlechty in his *Schools for the 21st Century*, we can begin to understand that fundamental reform can not occur within school systems unless those systems have in place the capacity to create, develop, implement, and maintain change.

First, school leaders must be able to envision the type of school and school system that can produce desired outcomes for the future. They must be able to identify and plan the changes that need to take place to meet these goals. To understand the implications of those changes, they must be able to answer three primary questions: Should we make the necessary changes? Can we make them? How do we go about making the changes?

Once administrators have developed a strategy to reach their goals, they must make and sustain a long-term commitment to the plan, a commitment that is not swayed by each pronouncement from school reformists. And they must develop assessment strategies that will accurately measure their success at reaching these goals.

We then need to encourage schools to form the type of decision-making team that can establish broad schoolwide goals and objectives, determine the changes that need to occur, plan the necessary steps to reach their goals, and propose concrete ways to implement the plan. We must also be prepared to help schools train those who are to join the decision-making process. Until we are ready to do this, fundamental school change is unlikely to occur.

Finally, we should minimize interference from educational bureaucracies. In many communities schools are encouraged to create decision-making teams responsible for school governance and management tasks. Yet, at the same time, they are required to meet all the existing local, state, and national regulations, many of which contradict changes the team believes must occur in their schools. Until such regulations are waived, teams will not be free to make innovative and creative decisions to improve teaching and learning.

One of the best-known experiments using school-site management teams to restructure the schools was begun in the Dade County (Florida) School System in 1987, and has expanded to include over 138 schools. And in the state of Washington, a state-wide program to encourage innovation, Schools for the 21st Century, begins its third year. Both Dade County and Washington can cite model programs in individual schools, but their success at promoting the kind of system-wide, fundamental change we've been talking about has been ambiguous at best. Less well known but quite instructive is the experience of the Orleans Parish School District.

Site-based management/shared decision-making is just one tool among several for supporting change in the schools. School leaders and decision-making teams may also reorganize core curriculum, reassign staff, establish better communication with students and better connections between the school and community social services — all to promote students' academic success by creating a support network to enhance the learning that takes place in the classroom.

Orleans Parish, Louisiana: Establishing a Structure for Change

The Orleans Parish School District has begun the difficult process of evaluating strengths and weaknesses of its schools and system and creating a district-wide commitment to change. These schools have a long history of providing a mediocre-to-poor education for their students. It's a familiar story. Most middle-class parents sent their children to parochial or private schools and those well-educated children went on to become the next New Orleans work force. But now, in New Orleans as elsewhere in the country, business needs a broader, better educated pool of workers, and is looking to the public schools to provide them.

What makes the scenario in New Orleans different from that of many other communities, is that the business community recognized early that no pleading, cajoling, or demands on their part would effect real change in the schools. They believed that the school system itself had to develop the capacity to change. And many business leaders were also quick to admit that too many prepackaged "solutions" were being dropped into the schools with no real sense of what issues needed addressing and what the best ways were for confronting the issues.

Accordingly, the New Orleans Business Task Force on Education hired a consultant to work with the superintendent and school leaders to evaluate needs, develop specific objectives for the school system, and formulate a long-range plan to meet those objectives. As outlined in a statement of the community initiative, titled *Coalition for Educational Excellence by 2000*, the purposes of the assessment were to develop a workable plan to guide the system in substantial reform, to create a structure that would coordinate the efforts and resources of community and business leaders in order to support the plan, and to nurture an infrastructure within the school system itself to support and sustain the long-range implementation of the plan.

After the first year's assessment, a full-time advisor will be hired by business and housed in the district office to work closely with district staff. Throughout both the assess-

ment and implementation phases, the process will be handled in such a way that all the stakeholders — education, business, and community leaders — will know and support the plan. This isn't easy. Because the Coalition is working to establish structures for change within the school system, there are no special programs to attract media attention and public support. Instead, there is the time-consuming and often frustrating struggle to conceptualize the future, set goals, and develop a strategic plan for the next several years.

IMPLICATIONS OF THE ORLEANS PARISH EXPERIENCE. As the New Orleans effort illustrates, when business decides to help a school system develop the capacity within itself to change, it must be ready to do much more than provide necessary consultants. It must also work closely with the school system to develop a long-range plan and then to create programs and projects that strengthen the objectives and goals of that plan. The usual practice of business — to set ready-made programs into individual schools or the school system as add-ons or special projects with no connection to the school's own reform objectives — is not helpful and may, as others have pointed out, actually harm the reform effort. Instead of promoting ways to fundamentally change the way schools operate, these programs prop up a system which, as currently organized, fails to educate its students. If business is serious about really changing schools, it must be willing first to help the school system develop within itself the capacity to change.

Dade County, Florida: Using the School-Based Management/ Shared Decision-Making Model

In the 1987-88 school year, then-Superintendent Joseph Fernandez instituted a five-year restructuring plan for the Dade County schools. Unhappy with the performance of the schools and the quality of education Dade County students received, Fernandez devised a "private sector approach" to solving the system's problems.

With waivers regarding school board rules, teacher labor contracts, and state regulations, schools were invited to submit proposals of innovative and creative ways to address student needs. Teams consisting of the principal, teachers, staff, and (sometimes) parents designed a variety of ways to organize, manage, and carry out their job of teaching students. Submitting proposals to the program was voluntary, and over 138 schools (out of 263) were selected to become part of the *School-Based Management/Shared Decision-Making* program.

The participating schools received the same funding as all other schools in the system, but they had the freedom to spend the money any way they wanted. They could set up different governing structures, decide on curriculum and course requirements, change the way teachers are hired, trained, and evaluated, and assign teachers differently by changing class schedules and sizes. Some schools extended the school day, opened on Saturday, hired Berlitz teachers to teach language classes, installed computer technology, and so forth. The schools themselves were free to decide what they needed and how to get it; the central office did not impose any method or approach beyond the requirement that teachers be given a major role in planning and decision-making at the school.

Benefits of the School-Based Management/Shared Decision-Making program in Dade

County are several: It has generated a renewed commitment to better teaching and learning; it has extended the involvement of teachers, staff, and parents in making decisions on central school issues; and it has given schools new responsibility and more direct accountability for their actions.

IMPLICATIONS OF DADE COUNTY'S SCHOOL-BASED MANAGEMENT/SHARED DECISION-MAKING. In Dade County, as elsewhere, the School-Based Management/ Shared Decision-Making model was set into the schools without a clearly focused, long-term, systemwide plan: each school followed its own agenda with no overall strategy to guide its decisions. Among pilot proposals for the Dade Country program were: a peer-support program, an holistic language-arts instruction model, teachers involved in hiring decisions, several team teaching assignments, a structured schoolwide silent-reading period, and so on. All pilot proposals — whether change-oriented, program enhancements, or add-ons to the regular school schedule — were deemed of equal value.

A weakness of this plan is that this lack of coherence can leave schools vulnerable to each new reform program that appears on the horizon, diminishing the long-term effectiveness of its decisions.

Washington's "Schools for the 21st Century": Searching for Solutions

In 1987 Washington enacted a statewide school restructuring pilot, *Schools for the 21st Century,* to determine whether student learning would increase if schools were given the opportunity to make their own curricular and management decisions. Governor Booth Gardner's proposal was to free schools from hampering state regulations so that they could develop creative solutions to local problems. Schools were encouraged to set their own goals and objectives and plan ways to meet those goals without concern about adherence to all the state statutes, administrative rules, local school district rules, or even all the union contract provisions. The point of the program was to generate solutions and, over the length of the program, to determine what elements improve the overall performance of students.

At first, most schools were timid in their proposals for change; very few suggested programs that would take advantage of promised waivers. However, once selected and encouraged to make local decisions and develop school-site management, they became braver and more innovative. Student learning became the focus, and like the Dade County schools, Washington's Schools for the 21st Century proposed a variety of ways to change. Among other things, they developed team-teaching models, created classes based on cooperative learning, instituted community service programs for students, designed theme-based curricula for each grade, and reorganized instructional practices to help all students succeed.

A major stumbling block to the success of the Washington project came not from lack of innovative ideas at the local schools nor from lack of state support; it came when school districts refused to "cut the red tape" of their own bureaucracy. The Seattle School District, for example, undercut many of the proposed changes of the 21st Century schools in their district, slowing down change by demanding adherence to picayune regulations.

IMPLICATIONS OF WASHINGTON'S SCHOOLS FOR THE 21ST CENTURY. The stated purpose of Schools for the 21st Century was to encourage and support school-based innovation, not to produce replicable model projects. However, we know that it is not enough to create "living laboratories for change"; we must begin to apply lessons learned in these laboratories — either in a cautionary way when we develop other projects, or in creating workable solutions for general problems. Therefore, we should be paying close attention to each project.

First, we need to be able to answer some general questions about the nature of the project: What were its goals? What was planned to meet those goals? How well did it carry out its plan? Second, we need to know how the project developed over time: What difficulties arose, and what adjustments were made in order for the project to work? What were the absolutely critical features that had to be in place in order for the project to succeed? What regulations had to be waived before the project could succeed? And finally, what do we do with what we've learned?

The six-year pilot program will have little lasting effect unless we monitor each project carefully and examine what it reveals not only about teaching and learning but also about creating change-oriented programs in the schools. From the Schools for the 21st Century experience we should be in a better position to analyze state and local regulations, and develop, through education policy, a statewide environment that fosters fundamental school reform.

Conclusions: Need to Establish Systemwide Goals and Plans Shared by Administrators, Teachers, and Staff

There are those who believe that schools can best be reformed by deregulation and decentralization. Give an individual school more responsibility and greater autonomy, they say, and then, by holding it strictly accountable for the type of graduate it produces, it will develop reforms needed for its teachers and students.

Examples from Dade County, Florida, and the state of Washington illustrate the variety of creative practices schools can come up with if left alone, but the proposed ideas do not always include reform-minded changes. Often a school's "innovative programs," like those developed by companies and others outside the system, simply enhance classes and services the school already provides. It has become clear to many who support such efforts that we also need to establish structures that, as part of the system, provide a framework within which change-making programs and plans can be developed and supported. We cannot count on individual solutions alone to address the need for fundamental change in how schools teach and how school systems operate.

If we want to create a context that encourages innovation, we must establish a systemwide set of goals — and a long-range, well-defined plan to reach those goals — shared by administrators, teachers, and staff. The process takes time and patience and can succeed only with sustained commitment and hard work. At the moment it appears that

how goals are developed for a school system varies greatly, and how the system develops a strategy to achieve its objectives and goals varies almost as much.

Of course, developing a capacity for change takes more than accomplishing the difficult steps of setting goals and creating long-range plans. Earlier we discussed four elements which, according to Rosabeth Moss Kanter, must also be in place before change is possible: a considerable amount of time, continuity of people, security and trust based on a broad coalition of support, and a continual flow of resources. Business leaders may be most helpful in this process by helping to create a stable environment within which change is possible.

Outcome: Measure Effectively Academic Success

Whether directly or indirectly, state educational policies affect student performance in the schools. States determine teacher certification standards and professional development requirements; they establish curriculum guidelines and, in some cases, select textbooks and equipment; they design and promote assessment instruments, and interpret assessment data; they reward and punish schools and school systems based on this data; and they determine district financing levels and distribution of special education funds.

Increased Testing

In the current frenzy to improve schools, many states have increased the frequency and number of standardized tests used to measure their students' progress and to compare students in one district or state with another. The 1980s saw over forty new testing provisions established, so that a typical state assessment program now includes student achievement tests given at several grade levels in most academic subjects, as well as basic competency or proficiency tests in subjects such as reading, mathematics, or language arts.* The past five years have also seen a greater reliance on formal assessments and reporting on results at the national level from the Department of Education's yearly Wall Chart to increasingly frequent reports from the National Assessment of Educational Progress (NAEP).

The more testing that goes on in the nation's schools, the more fervent are complaints not only about the reliability and usefulness of the results but also about the amount of time that testing takes away from classroom activities and evidence that testing increasingly dominates curriculum decisions.

Problems with Standardized Tests

When we consider the problems of standardized testing, we would do well to remember its promise as an objective means to measure student performance. Standardized tests offered us a way to discover what students knew and to compare students' scores without being influenced by their academic or social standing.

Over the years, we have come to recognize several problems with many of the standardized assessment tools we use. Most standardized tests promote values and knowledge implicit in a Euro-centered world view, and not all American students will recognize the

* See pages 17-26 in *The Progress of Reform: An Appraisal of State Education Initiatives*, by William A. Firestone *et al.*

assumptions behind the tests or many of the questions. Although they may know the material being tested, they may not respond successfully to the specific test questions.

We can immediately see how multiple-choice testing becomes problematic when we consider its effectiveness in assessing writing. For years we equated good writing with mastery of syntax, usage, and word choice. Tests based on these criteria subverted teaching until the focus in most English classrooms across the country became grammar and usage, not thinking, writing, and communicating ideas. Now many states are experimenting with ways to use actual samples of student writing to measure student achievement. The effect on classroom teaching has been to focus on the process of thinking, evaluating, writing, and revising.

Another problem in testing appears when the same tests are used year after year, quickly becoming the basis of classroom teaching or, worse, used directly to prepare students to pass the test. It is not unusual, as states relate tests scores to teachers' merit pay increases, district financing, or school competitions for parental choice, that cases of outright cheating on standardized tests become more widespread.

Finally, some tests are actually designed to show inflated results that may not reflect students' academic knowledge. Recent studies of student test results showed that 82 percent scored above average on nationally normed standardized achievement tests, and 48 of 50 states reported scores above the national norm. Such misleading test scores keep school district officials and parents happy with the status quo and unlikely to accept the need for school reform.

Proposed New Kinds of Tests

Among the kinds of assessments proposed to replace standardized tests are live performances, products, student portfolios, open-ended tests, teacher judgment, school grades, and other performance-based tests. None of these alternative assessment methods is new. Many of the presently unsatisfactory standardized tests were instituted because of serious problems with these more subjective forms of evaluation.

For example, research shows that assessment of student-written essays can be highly subjective. In one well-known experiment, the Educational Testing Service created a panel of fifty-three professionals in law, business, and the natural sciences, to evaluate and grade 300 writing samples on a scale of one to nine. The results varied so widely that fully one-third of the essays received every grade from one to nine, and no essay received fewer than five different grades.*

One of our goals in school restructuring, then, must be to help state policymakers develop ways to effectively reveal the skills and knowledge we seek from redesigned schools. Both students and teachers know without question that what is on the test is what ultimately matters in the schooling process. If we want schools to do a better job educating students for the twenty-first century, we must design assessment tools that promote not only thorough factual knowledge but also problem-solving, analysis, comprehension, data collection, evaluation, synthesis, and written communication.

* Paul Diederich, ed. *Measuring Growth in English*. Urbana, IL: National Council of Teachers of English, 1974.

This does not mean discarding all existing assessment tools. Several different types of tests could be combined to evaluate how well students are educated. Obviously, students are better educated when they know the content of a subject in-depth before moving to a deeper level or to new material. We can be assured of this taking place only when we assess learning in terms of how well students can exhibit their mastery of the subject.

Examples of New Kinds of Tests

We saw, in the example of the Key School Project in Indianapolis, an attempt at individualized assessment based on student performance. Students at the Key School are assessed by means of video portfolios that include student interviews and special projects, as well as by taking state-mandated standardized tests. By using the video portfolios along with test scores, teachers are better able to evaluate each student's performance and how well it conforms with their requirements and expectations.

The Coalition of Essential Schools recommends that schools define explicitly what they mean by successful student performance, so that students understand what they should know and be able to do before they can graduate. The cornerstone of Essential Schools is the ability of students to reveal their academic mastery through course-level performances or final exhibitions. The types of performances and exhibitions at Essential Schools range from essays or special projects to debates or recitals, all of which CES Chairman Theodore Sizer describes as "the public expression by a student of real command over what she's learned."*

The point of mastery tests is to assess proficiency: how well the student performs a range of related activities. An example of proficiency or mastery testing might be writing assessment. Standardized tests measure students' skill in grammar, mechanics, spelling, punctuation, usage, and vocabulary. Obviously, being able to write competently involves more than mastering these individual skills; among other things, good writing also means being able to organize and develop ideas and communicate those ideas clearly to others. A writing proficiency test, which requires a sample of student writing, will reveal the full range of writing skills from grammar and punctuation to how well ideas are focused, developed, and expressed.

We speak somewhat glibly about redesigning or restructuring schools in order to increase student learning. We say that we want students who learn through cooperation and teamwork, who are actively engaged in learning, who not only learn basic skills but also how to analyze information, make connections, and solve problems. We then go further to say that we expect students to be able to "exhibit mastery" of these qualities. If we were serious about this, we would have to develop a curriculum and teach courses that train students to perform in these ways. And we would have to rethink assessment as well, defining academic requirements in terms of student mastery.

Consider some of the changes that would occur if we decided to accept a performance-based exhibit of mastery for graduation from high school:

* "Performances and Exhibitions: The Demonstration of Mastery," *HORACE: The Coalition of Essential Schools Newsletter*, 6 (March 1990). This issue includes examples of several different kinds of "authentic performances."

1. Schools would need to be smaller. (Teachers cannot perform individual assessments on students they don't know well.)

2. Teachers would have to work as a team. (Everyone needs to agree on what is being evaluated: Is just the answer or final exhibit being graded?)

3. A carefully developed scoring rubric needs to be developed. (How important is the process by which the student arrived at the answer? Do students who are naturally at ease performing before others have an unfair advantage?)

4. Evaluation standards will have to be established. (Students need to be protected from capricious teachers. Also, colleges and universities need to be able to evaluate and compare potential students' knowledge and academic performance.)

Changes in assessment tools are beginning to take place. Several states are experimenting with performance-based assessment — through student portfolios and/or exhibitions of mastery — which could replace state mastery tests (especially in Connecticut, Vermont, and California). To measure the progress of reform efforts in Rochester, New York, the National Center for Education and the Economy is developing both assessment and accountability systems. And even at the National Assessment of Educational Progress (NAEP), student portfolios and mastery exhibitions are becoming part of the base of information gathered on student performance. But we are only beginning to discover better ways to assess academic progress, and the problems associated with these new methods are complex and difficult.

Conclusions: Need to Match Assessment Tools to Restructuring Goals and Outcomes

Assessment and accountability issues are intrinsically linked with school restructuring and reform. There are indications that things are going to get worse before they get better. The National Wall Chart, which measures students' yearly achievement based on standardized tests, will soon proliferate into state wall charts as governors compete over whose state has improved education faster. There are many educators and business leaders who believe that, in spite of the difficulties associated with them, standardized tests provide the necessary bottom-line results to assure parents and community members the schools are getting better. This reliance on standardized test scores alone will not move education reform toward meeting the goals of school restructuring.

It is certainly fair to say that attempts to restructure schools and school systems are often hindered by the mismatch between the goals of restructuring and the tools we have to measure student learning and teacher effectiveness. As involved partners in school restructuring, companies need to undertake the task of seeking different kinds of assessment. We can look at assessment needs in light of the other three desired outcomes of school restructuring.

- If we want to increase student learning, we must move beyond assessing students simply by achievement tests and use a broader set of tools, including proficiency tests to measure their academic mastery. We must also find ways to assess students' attitudes toward learning and, using that information, evaluate the success of the education process itself.
- If we want to extend the capacity of teachers, we must also extend the way we evaluate teachers, so that we can recognize how teachers coach students successfully, lead students to think independently, and organize classes to encourage cooperative learning and group work.
- And how can we assess the effectiveness of school systems seeking to encourage innovation? We must begin to examine the ways school systems can be reorganized and understand how the components of the system support creative school restructuring. While we seem to be on the verge of discovering ways to know whether or not school systems reach desired outcomes, we are not there yet.

Chapter 5

How Can Business Support School Restructuring?

In the Introduction, we described two ways in which business is involved with precollege education: through enrichment programs and through reform programs. Clearly, schools are not organized and run so that they do a good job educating students. Therefore, business leaders must become outspoken advocates for major education reform, with the goal of changing the way schools operate. Enrichment programs are not incompatible with this goal, so long as they are linked closely to efforts for fundamental change.

To identify a constructive role for business in promoting and supporting school restructuring, *first we must acknowledge the complexity of the problems facing local schools and school systems.* As we've seen throughout the report, efforts to increase student learning often link academic with social and personal needs. Extending the capacity of teachers includes deepening their subject-area expertise and broadening their teaching styles as well as developing their managerial experience and promoting their more personal involvement with students. The process of establishing structures within a school system to encourage innovation means much more than simply instituting a site-based management/shared decision-making model into a school. And developing new assessment and accountability systems demands that we begin by rethinking learning and our expectations.

Second, it's important that business leaders interested in working in the education area recognize local political realities — who makes decisions affecting the schools, and what are the relationships among those educational decision-makers. It may be necessary to link the corporate education reform agenda to local programmatic efforts to encourage the type of systemic change that needs to take place within schools and school systems. The long-term success of reform efforts depends upon a broad consensus of those within the system and those outside who share a commitment to educational goals as well as to the process of achieving those goals.

And third, if we are to move the school reform agenda along, business must understand and monitor the process as well as evaluate the outcome. Most companies eloquently describe their desire to create and fund programs that will make a significant difference in elementary and secondary education. The effectiveness of their support of precollege education, however, is strongly influenced by the way they make decisions, develop an action plan, invest staff expertise and time, and remain supportive yet critical allies in the restructuring effort.

Putting together a company education-support program involves three steps:

1. **Know** education-reform issues, and under what conditions and with what success they are addressed.

2. **Choose** options or entry-points most suited both to company expectations and needs and to local need and/or the national context.

3. **Manage** the program well by developing a clearly focused strategy, monitoring its progress, and recording its effectiveness.

The preceding pages have, we hope, contributed to the business community's knowledge about opportunities and options for supporting education reform. We have looked carefully at the issue of school restructuring and have learned that an important key to helping schools do a better job is to change the roles and relationships among students, teachers, administrators, and parents, with each party accepting responsibility for learning, teaching and supporting the learning/teaching process. We have examined why creating change is difficult in the bureaucratized world of schools, and we have looked at a variety of examples of schools undergoing a process of change that has encouraged student learning and achievement.

In these concluding pages, we shall outline what we mean by choosing and managing a program of education support. These are not mysterious concepts, unfamiliar to business leaders; they are, however, concepts that have not always been integral to corporate support of education.

Choosing an Education-Support Program

A myriad of interrelated problems and needs must be addressed almost simultaneously if we are to successfully transform the way schools and school systems operate. We must change the way students value education, change what is taught and how it is taught, bring decision-making to the school site, create more effective ways to measure academic performance, and link families and schools.

Faced with such a list — and there are many other areas to be included — companies can easily feel daunted by the thought of participating in restructuring efforts. We outline below five beginning steps: First, clearly understand the corporate perimeters within which you can develop a program; then, identify the issue(s) most appropriate for company involvement, and describe it in terms of desired outcomes; third, identify available approaches; fourth, select an appropriate entry point that leads toward accomplishing a specific outcome; and finally, choose the action you wish to accomplish within that entry point.

Understand the Corporate Perimeters

Before beginning to create an education-support program in elementary and secondary education, a company needs to understand its corporate culture and to describe the context within which it can work effectively.

There are obvious first questions to consider, and the answers to these questions help focus the process. What locations can we work in? The needs in one location may differ greatly from those in another, and if the company wants to serve a specific community, you will need to discover the most effective role to play in that setting. How much money are we talking about? What is the length of time we can commit to the program? Clearly, the decision to spend $500,000 over several years requires a different level of commitment than a $25,000 one-time grant. What kind of staffing can we assign to the program? If a company wants to develop a sustained program addressing a specific issue, it should staff the project so there is in-house expertise and continuity.

Additional questions also need to be considered early in the decision-making process: How much visibility does the company seek for its program? What types of education pro-

grams are you definitely not interested in supporting or developing? Are there programs in other contributions areas on which to build? Will the company consider requesting proposals? If so, what requirements and limitations will be built into the process?

Once the corporate perimeters have been clearly identified, then the process of deciding on an appropriate education-support program can begin.

Identify the Issue and Describe It in Terms of Desired Outcomes

After gaining a clearer understanding of the company's commitment and interests, it becomes easier to decide on the one or two major education issues that are most appropriate.

School restructuring is currently a prominent education issue and is considered the most effective way to improve the quality of education. But it would be difficult to develop a company strategy to address this broad issue without first knowing what we hope to accomplish by restructuring schools.

In our discussion of restructuring, we focused on four major goals: to increase student learning, to extend the capacity of teachers, to create school systems that encourage innovation, and to develop effective measurements of academic success. A number of programs — ranging from small amounts to large amounts of money, from short-term to long-term commitments — can be developed to meet any of these goals. Companies may find ours a useful way to describe the issue, or they may want to name other outcomes (for example, to link families and schools or to link community services to schools).

Identify Available Approaches

Once general reform goals or outcomes are understood, it is possible for a company to identify an approach not only consonant with its corporate identity, history, role in the community, and priorities, but also appropriate to the local, state, or national context within which it plans to work. Two questions should guide the decision-making process.

WHAT CAN BE ACHIEVED IN THE SHORT-TERM? Companies may decide to focus on elements of a major restructuring project that produce short-term results while furthering the reform agenda. For example, since many of the earlier examples illustrate a need for the increased professionalization of teachers, a company could develop programs to help teachers gain expertise, learn industry applications in their subject area, or discover different pedagogical methods for teaching different types of students. Among many other possibilities, companies could also help schools develop closer ties with parents and guardians or help link schools to community services.

WHAT CAN BE ACHIEVED THROUGH LONG-TERM INVOLVEMENT? Structural reform programs that significantly change the process by which students are educated demand patience, vision, and long-term commitment. To foster systemic change, companies could help school systems develop the change capacity within themselves, investigate new assessment and accountability procedures, or develop organization, scheduling, and governance strategies consistent with the reform principles outlined above.

Within short- and long-term approaches, there is a certain elasticity in the commitment

of corporate resources from large to modest to small dollar amounts. Of course, a company's decision depends upon its capacity, resources, and outlook. For example, if this is a signature grant intended to bring a high level of recognition, the company would probably start the program in a number of sites and pledge long-term support. In a model approach, on the other hand, a company would focus its attention on one or two schools and, after an initial three-year start-up, assess progress, make necessary adjustments, and either continue to develop the project or help to replicate the model in other sites. Or, for a smaller amount of money, a company may wish to hire a consultant to help the school identify its needs and tailor a program to company resources.

Implicit in our examples of reform programs are many other choices businesses must consider when thinking about ways to reach desired outcomes. Some programs emphasize student development and social needs, linking families closely to the schools. Others focus on changing the school's academic setting so that students learn to become responsible for their education. We looked at models that expanded and experimented with the curriculum, some that honed the curriculum to a few essential subjects, others that supported the traditional curriculum with intensive tutoring and guidance. Some of these experiments were conducted on a small scale, others as part of a large-scale public program. The success of some efforts depends upon coordination among several companies and community groups, while others can be supported individually.

Select an Entry Point

Within each of these approaches, the company must identify entry points where its support can make a difference. It is important to keep corporate and local contexts in mind when selecting appropriate areas in which to build a program. For example, a company that discovers a real need for workers with a solid background in mathematics and science may decide to develop a program that strengthens elementary teachers' knowledge and pedagogical skills in those areas. If the school system is undergoing major reorganization, a company could help train administrators, teachers, and staff to undertake cooperative new roles, or it could help develop accountability and assessment measures that reinforce newly-defined goals of the restructured system.

Again, the examples we included earlier illustrate many other options. Some programs help teachers develop a variety of teaching styles, some bring teachers up-to-date in their subject area, and still others encourage closer teacher-student counseling relationships. There are programs that focus on student mastery of specific academic subjects, others that stress helping students learn to think well and gain self-confidence. In some instances, the effort is to help school systems develop within themselves the capacity for change, linking a site-based management/shared decision-making strategy to broad system goals. And recently, more emphasis is being placed on developing new tools for student assessment and school accountability.

Choose the Action To Be Accomplished

In deciding on an approach to the schools as well as choosing the appropriate entry point,

companies can make either short- or long-term commitments. They can act as funders, consultants, planners, or mediators; they can be on call as needed or continuously involved.

Selecting an area for support and/or involvement is an important early step, but the company must also decide what it wants to accomplish and describe the program in those terms. If, for example, "Teachers" is chosen as the program focus it could more usefully be described in specific actions such as: "Learning Coaching Techniques," "Developing Expertise in the Science Classroom," "Linking Teachers and Families," or "Creating a Teacher Network to Share Innovative Ideas."

Developing and Managing an Education-Support Program

Many educators have a tendency to swing wildly from one new approach to another: either all students are actively engaged in hands-on projects or they sit passively in classrooms listening to lectures; either students acquire facts or they learn to think; either teachers teach by lecture or they coach; either school systems have site-based management/shared decision-making or they are managed autocratically; either we test by standardized multiple-choice tests or we test by student-mastery projects.

By envisioning the world of schooling in this either/or way, we limit the number of solutions and alternatives we can use to address the problems. And, as with any political movement, reform quickly becomes an ever-new set of unilateral pronouncements, decreasing rather than increasing a broad range of possibilities.

Business is used to examining the cost/benefits of many different organizational schemes, and they could usefully help educators to approach change by studying several alternatives. As corporate support of school reform becomes professionalized, both planning and managing programs will become more businesslike. We urge companies to have a self-conscious awareness of how they identify, select, and develop appropriate programs.

The process of managing an effective education-support program should parallel the process of putting together a business plan:

- Analyze alternate strategies for involvement.
- Develop a strategic plan to reach long-range objectives.
- Identify constraints on the program.
- Report on progress, including costs in resources and personnel.
- Record and evaluate what happened.

Only by developing a carefully supervised involvement in education can a company sustain its commitment over time, with enthusiasm and satisfaction.

Analyze Alternate Strategies

Once a company has selected the focus of its education-support program, the next step is to evaluate alternate strategies for organizing the program. If one or another of the projects

described in this paper is already under way in your community, or seems particularly well suited to your community or company interests, you may want to support its general development, explore ways to broaden its effectiveness beyond the single program, or support and extend an element of the project. We suggest that businesses can bring coherence to their investment in education by using one of the three following general approaches.

PROGRAMS THAT LINK SEVERAL OUTCOMES. Many of the examples described earlier illustrate programs that link several outcomes. The Corporate/Community School (C/CS) in Chicago, for example, was created to increase the academic achievement of poor, inner-city children. Teachers work cooperatively and contribute to many of the curricular and governance decisions at the school. C/CS also systematically connects the family with the school, not only by encouraging parent/teacher communication, but also by enrolling all siblings, helping link families and local human services organizations, and providing classes for adult family members who want high school equivalency certificates or basic literacy skills.

Instead of supporting an existing model, a company could create its own program linking several outcomes, such as student learning, teacher training, and assessment. For example, the program could include tutoring, after-school science clubs, and special events designed to encourage more female and minority elementary school students to enjoy science; it could assess equity issues in teaching science throughout several grades; and it could train teachers in effective new ways to teach science as well as in ways to change their attitudes toward the potential success of all their students.

Sometimes a company will also want to link its own reform agenda to specific local needs. For example, it could develop a grant program that permits only those schools whose restructuring efforts are already supported to apply for enrichment or equipment grants.

PROGRAMS FOCUSED ON A SINGLE OUTCOME. Other businesses will prefer to focus their program on a single outcome: increasing student achievement in mathematics, as in the example mentioned earlier of the Comprehensive Math & Science Program. Or extending the capacity of teachers through a program of intensive study and communication like that developed by the National Faculty. A company could decide to select part of a larger program, such as funding workshops to help teachers in the Coalition of Essential Schools learn coaching and other techniques for involving students more in their education.

PROGRAMS BASED ON A BROAD THEME. Those companies who are able to commit a substantial amount of money to a major effort in the schools may prefer to develop a structured program based on a broad theme, such as "involving families in the education process," "improving America's competitive edge in mathematics and science," "expanding minority academic participation and achievement," or other themes, around which to develop a number of specific approaches to the theme.

If, for example, a company wanted to increase family participation in education to increase student learning, they could support efforts like Family Math projects, or create a safe place for school study groups in the community, or help schools provide better reports on student achievement for families. A company could also link ideas from several of the examples described earlier: develop connections between schools and social service agen-

cies, as the Corporate/Community School does in its Chicago neighborhood; create literacy and high school equivalency programs at a school setting for the students' parents or guardians, again as exemplified by C/CS; or actively encourage increased teacher-parent interactions, as at the Minneapolis Public School Academy, or the Model School Project in New York.

Whatever the level of your investment or the scope of your approach, it is critical to work toward genuine institutional change and toward a set of goals widely shared within the business community. Only a few companies can undertake to be leaders in comprehensive education reform; but if smaller companies, making more modest investments, adopt consistent and supportive approaches to education, the result will be a coordinated and much more effective overall effort.

Develop a Strategic Plan

After selecting the approach that seems best — linking several outcomes, focusing on a single outcome, or developing several program around a broad theme — the company should develop a strategic plan to guide the way they will activate their program. A strategic plan for an education-support program, as any business strategic plan, outlines five tasks:

1. Identify long-term objectives.
2. Describe plans to reach those objectives.
3. Define the scope and sequence of the program.
4. Monitor the project and identify ways to measure its success.
5. Evaluate company's overall approach to education support.

To identify long-range objectives, a company elaborates on its earlier decision on what action it wants to accomplish through its program. For example, a company may decide to help teachers working in the Coalition of Essential Schools learn to teach by a variety of techniques other than the traditional lecture. In this case, it could list its objectives as follows:

- We want to identify, describe, and illustrate a variety of teaching models, such as coaching, cooperative learning, and team teaching.
- We want to help teachers determine the best teaching method to use for different subjects with different students.
- We want to develop assessment and accountability measures to better evaluate different teaching methods.

With such a set of objectives, the company can develop a program to encourage dramatic changes in how teachers are trained and evaluated.

To describe plans to reach those objectives, the company outlines a variety of ways to help schools and school systems best train teachers in Essential Schools. For example, to meet the

objectives listed above, a company could fund training workshops where experienced teachers train others new to the different methods, use videotapes that showcase the methods, or schedule site visits to Essential Schools. It may want to encourage university/school collaboration on projects to relate pedagogy to specific subject areas or different teaching methods to the learning cycle. It may fund research on better assessment measures, train principals and superintendents in how to evaluate different types of teaching, or help change parent and community expectations toward teaching and learning.

Once the objectives and program plans are identified, the company needs *to define the scope and sequence of the program:* how much money, time, expertise, and energy will be committed toward reaching these goals? Companies that seriously want to make a difference in school reform should identify at most two or three priority reform issues on which they wish to work. They should be willing to assign staff the responsibility of keeping well enough informed on these subjects to help guide the future direction of the reform projects the company supports and funds.

As soon as a support program is undertaken, a company should begin *to monitor the funded projects and identify ways to measure their success.* The monitoring process must be closely linked to a set of clear objectives and well-defined ways to reach those objectives, and this means that business leaders should help develop specific outcomes in the project's operational plan. It is not especially useful to say, for example, "We want all students to learn to use their minds well" without tying such a goal to specific, measurable outcomes. What kind of evaluation will precede the project and identify the starting point? What are specific outcomes do we seek? What steps will we take to get there? How will we assess our progress? What kinds of reports will be required? From participants only, or from others in the school? Will on-site evaluations be done? Both company and program staff should know from the outset what is expected, how reports should be presented, and how the information will be used.

When a company is involved in a restructuring program, it needs to maintain an attitude of inquiry, but its approach to monitoring its projects or assessing the success of the programs it supports should be appropriate to the stage of each project. In other words, understanding how a project was implemented is critical when we are trying to disseminate the program and get several models going in different settings; a full-scale evaluation of a promising model is necessary when it is on the verge of becoming a major state or national reform effort.

Finally, from time to time a company should *evaluate its own overall approach to education-support.* Does the program still reflect the company's education goals? Are the projects it funds the best way to implement the program? Should the company be looking for different kinds of projects? What mid-course corrections need to be made to increase the program's effectiveness?

For a corporate education-support program to be really effective, knowledgeable staff need to remain actively involved in their specific projects. Only through a sustained commitment and an accumulation of expertise can the company both advise and help in the

further development of the reform strategy and use those lessons they are learning about what works to reform education to inform the development of the program in general.

Identify Constraints on the Program

The success of any education-support program depends upon the care with which a company has identified potential problems within the company as well as within the community. Below are some of the hard questions that may need to be considered before launching a major school restructuring program:

1. What resources are available? Are there time and human constraints to the program's success? How enthusiastic are employees or management, school staff or community leaders?

2. Is there an added agenda for the company or the school system? Do they expect unconditional funding? Are we looking for national visibility?

3. What are the political realities at the state, local, and/or school level? Is the system highly bureaucratized? Are there stable student and teacher populations? Do the unions and/or the school administrators support the kind of radical change the company expects?

4. Are there opportunities to collaborate with other companies or community organizations? Do we want to collaborate? What are the benefits of working with others?

5. What are the local attitudes toward the schools? Is there support for school reform and change? Are parents interested in changing the schools? What are the racial and economic barriers to change in the community?

6. Is there an existing network, or have community groups staked out their own territory or turf in education? What kind of communication already exists among potential network groups?

Report on Progress

Too often in the past, companies did not monitor the implementation of their education-support programs. In some cases, they could not evaluate the success (or failure) of their projects, nor could they identify those elements within the projects that promoted or hampered its success.

By requiring and reviewing progress reports, it is possible to change directions or emphases mid-course if necessary. As part of a progress report, it is important to restate goals and objectives and evaluate the steps that have been taken to reach those goals. Are we on target, or off target? If we aren't where we expected to be, how far off target are we?

Once those questions have been answered, the scope and sequence of the program can be adjusted and redirected.

Record What Happens and Disseminate the Information

We strongly recommend that companies keep a careful record on the outcomes of their efforts: Did what we want to happen, happen? How did it? Why not?

The final evaluation of the program should begin with a restatement of goals and objectives, followed by a careful analysis of what actually happened in the program. It is important that others know the steps taken in order to reach the end result (whether it was, by the company's standards, successful or not). It would be helpful to list elements that were absolutely necessary for the program's success, as well as those elements that hampered its success, and to identify the kinds of changes you would make to the objectives, plans, or other aspects of the program before repeating it.

We must share what we are learning in education-support programs with others so that mid-course adjustments can be made. Even a disappointing outcome helps us make better guesses about the value of promising new reforms and refines our understanding of the circumstances under which a given reform option is likely to be more or less effective.

If companies were willing to describe both the strengths and weaknesses of their reform efforts, we could all learn from their experience. Only by knowing some of the difficulties and successes of others engaged in school reform, can we begin to understand where we still need to go and how we can do a better job at promoting systemwide change in the schools.

What's also implied here is a new kind of corporate public relations, one that regards communication about the company's education-support activities as more than an opportunity to demonstrate good intentions or to applaud immediate successes. A public information program that records sustained efforts as well as good intentions, lessons learned from frustration and results gradually achieved as well as immediate successes — such a program gives your company an opportunity to demonstrate real and lasting commitment to the responsibilities of corporate citizenship.

Conclusion

By attending to how the education projects they fund are carried out, businesses can make a major contribution not only to the reform of eduction in their locale, but also, in an important way, to the process of education reform itself. Businesses that make a self-conscious commitment to managing, documenting, and assessing their education support programs will be creating a much-needed (and largely non-existent) information base, an accumulation of experience and observation. In the coming years, new participants in education reform (whether corporations or individuals or foundations) may no longer need to start from scratch with each reform effort. Drawing on a body of knowledge about what works and what doesn't, and under what circumstances, we can all move more efficiently and expeditiously through the change process — a process on which our future international economic stature, as well as our nation's social cohesion, now seem to depend.

Appendix A

Business Plan for Education Support

KNOW THE EDUCATION ISSUES.

1. Understand the issue within the national and local context.
2. Know how the issue is being addressed and with what success.

CHOOSE AN EDUCATION-SUPPORT PROGRAM.

1. Understand corporate perimeters.
2. Identify the issue and describe it in terms of desired outcomes.
3. Identify available approaches.
   a. What do we want to achieve in the short-term?
   b. What do we want to achieve in the long-term?
   c. What should be the emphasis of the program?
4. Select an entry point within an outcome category.
   a. Where can the company make a difference?
   b. What makes sense for the local setting or national context?
   c. What makes sense with corporate expectations and needs?
5. Choose the action to be accomplished.

DEVELOP AND MANAGE AN EDUCATION-SUPPORT PROGRAM.

1. Analyze alternate strategies.
   a. Focus on a program that links several outcomes.
   b. Focus on a single outcome.
   c. Develop several programs around a broad theme.
2. Develop a strategic plan.
   a. Identify long-term objectives.
   b. Describe plans to reach those objectives.
   c. Define the scope and sequence of the program.
   d. Monitor progress and measure success.
   e. Evaluate the education-support program.
3. Identify constraints on the program.
   a. What are the resource, time, and human constraints?
   b. Does the company or school system have an added agenda?
   c. What are the state/local/school political realities?
   d. What are the opportunities for collaboration?
   e. What is the climate of public opinion toward education?
   f. What existing networks should we join?
4. Report on progress.
   a. Restate goals and objectives.
   b. Evaluate effectiveness of steps taken to reach goals.
   c. Adjust scope and sequence; redirect program as needed.

5. Record what happens.
   a. Restate goals.
   b. Identify what happened in program.
   c. Discover how you got there.
   d. List elements absolutely necessary for success.
   e. List elements which hampered success.
   f. Identify changes to program before repeating it.
6. Disseminate information.
   a. What were the program's strengths and weaknesses?
   b. What we can learn from experience?
   c. Where do we go from here?

Appendix B

Resource Organizations

Outcome: Increased Student Learning

Coalition of Essential Schools
Department of Education
Box 1938
Brown University
Providence, RI 02912
401/863-3384

The Key School Project
Indianapolis Public Schools
1401 East Tenth Street
Indianapolis, IN 46201
317/226-4297

Yale University Child Study Center
P.O. Box 3333
230 South Frontage Road
New Haven, CT 06510
203/785-2513

Corporate/Community School
751 S. Sacramento
Chicago, IL 60612
312/638-1212

Public School Academy
919 Emerson Avenue North
Minneapolis, MN 55411
612/627-2685

Chiron Middle School
25 N. 16th Street
Minneapolis, MN 55403
612/332-6311

Outcome: Extended Capacity of Teachers

The National Faculty of Humanities, Arts and Sciences
1676 Clifton Road
Atlanta, GA 30322
404/727-5788

Rochester Public Schools
Administrative Offices
131 West Broad
Rochester, NY 14614
716/325-4560

Model School Project
Comprehensive Math & Science Program
School of Engineering
Columbia University
New York, NY 10019-5499
212/421-9595

National Network of Educational Renewal
College of Education, DQ-12
University of Washington
Seattle, WA 98195
206/543-6230

Outcome: School Systems that Encourage Innovation

Business Task Force on Education, Inc.
Camp and Gravier Streets
P.O. Box 30240
New Orleans, LA 70190
504/527-6944

School-Based Management/Shared Decision-Making
Dade County Public Schools
Bureau of Professionalization
1450 E. Second Avenue, Room 421
Miami, FL 33132
305/995-1470

Washington's "Schools for the 21st Century"
Assistant for Education
Office of the Governor
Legislative Building AS-13
Olympia, WA 98504
206/386-0820

Outcome: Effective Assessment Tools

Coalition of Essential Schools
Department of Education
Box 1938
Brown University
Providence, RI 02912
401/863-3384

The Key School Project
Indianapolis Public Schools
1401 East Tenth Street
Indianapolis, IN 46201
317/226-4297

National Center on Education and the Economy
39 State Street, Suite 500
Rochester, NY 14614
716/546-7620

Others

Center for Policy Research in Education
Eagleton Institute of Politics
Rutgers University
New Brunswick, NJ 08901
201/828-3872

The Center for Policy Research in Education (CPRE) conducts research on the implementation and effects of state and local education policies, and publishes research reports, briefs, and case studies on a variety of education issues.

Education Commission of the States
707 17th Street, Suite 2700
Denver, CO 80202-3427
303/299-3600

The Education Commission of the States (ECS) provides education information and technical support to governors, legislators, and state education leaders as they work to improve education at all levels.

National Alliance of Business
1201 New York Avenue NW
Washington, DC 20005
202/289-2888

Through its Corporate Action Agenda and Center for Excellence in Education, the National Alliance of Business (NAB) helps companies support school reform; develops coalitions among business, education, community groups, and state and local leaders; and formulates policies promoting education reform at national, state, and local levels.

National Association of Partners in Education
601 Wythe Street, Suite 200
Alexandria, VA 22314
703/836-4880

The National Association of Partners in Education (NAPE) represents the many schools, businesses, community groups, educators, and individual volunteers who work together as partners to enhance the education of children. NAPE hosts national and regional meetings, offers training in program development and administration of volunteer programs, and makes available a wide range of information and support services.

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